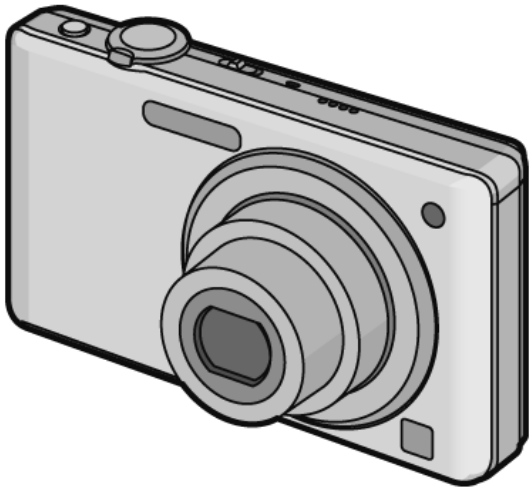
ORDER NO. DSC0906054AE
B26

Service Manual

Digital Camera

Simplified

LUMIX



Model No. DMC-FS12P
DMC-FS12PC
DMC-FS12PR
DMC-FS12PU
DMC-FS12EB
DMC-FS12EE
DMC-FS12EG
DMC-FS12EP
DMC-FS12GC
DMC-FS12GJ
DMC-FS12GK
DMC-FS12GN
DMC-FS12GT

Vol.1

Colour
(S)-------Silver Type (except GT)
(K)-------Black Type (except GT)
(P)-------Pink Type (except EG/GN)
(A)-------Blue Type (only P/PC/PU/EP/GC/GN)
(G)-------Green Type (only P/PC/PU)

Please use this manual together with the service manual for
Model No.DMC-FS7P/PC/PR/PU/EB/EE/EF/EG/EP/GC/GD/GJ/GK/GN/GT Vol.1 Order No.DSC0902005CE

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

© Panasonic Corporation 2009 Unauthorized copying and distribution is a violation of law.

Digital Camera:	Information for your safety
Power Source:	DC 5.1 V
Power Consumption:	1.35 W (When recording) 0.6 W (When playing back)
Camera effective pixels:	12,100,000 pixels
Image sensor:	1/2.33″ CCD, total pixel number 12,700,000 pixels, Primary colour filter
Lens:	Optical 4× zoom, f=5.5 mm to 22 mm [35 mm film camera equivalent: 31 mm to 124 mm/F2.8 to F5.9
Digital zoom:	Max. 4×
Extra optical zoom:	Max. 7.8×
Focus:	Normal/AF macro/Macro zoom/Face detection/9-area-focusing/1-area-focusing
Focus range:	Normal: 50 cm (1.64 feet) to ∞ Macro/Intelligent auto: 5 cm (0.17 feet) (Wide)/50 cm (1.64 feet) (Tele) to ∞ Scene mode: There may be differences in the above settings.
Shutter system:	Electronic shutter+Mechanical shutter
Motion picture recording:	848×480 pixels (30 frames/second, only when using a Card)/ 640×480 pixels (30 frames/second, only when using a Card)/ 320×240 pixels (30 frames/second) ∗ Motion pictures can be recorded continuously for up to 15 minutes. Also, continuous recording exceeding 2 GB is not possible. Remaining time for continuous recording is displayed on the screen.
Burst recording	
Burst speed:	1.8 pictures/second (Normal), Approx. 1.7 pictures/second (Unlimited)
Number of recordable pictures:	Max. 5 pictures (Standard), Max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited). (Performance in burst recording is only with SD Memory Card/SDHC Memory Card.)
Hi-speed burst	
Burst speed:	Approx. 5 pictures/second (3M (4:3), 2.5M (3:2) or 2M (16:9) is selected as the picture size.)
Number of recordable pictures:	When using the built-in memory: Approx. 10 pictures (immediately after formatting) When using a Card: Max. 100 pictures (differs depending on the type of Card and the recording conditions)
ISO sensitivity:	AUTO/80/100/200/400/800/1600 [HIGH SENS.] mode: 1600 to 6400
Shutter speed:	8 seconds to 1/2000th of a second [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
White balance:	Auto white balance/Daylight/Cloudy/Shade/Incandescent lights/White set
Exposure (AE):	Programme AE Exposure compensation (1/3 EV Step, −2 EV to +2 EV)
Metering mode:	Multiple
LCD monitor:	2.7″ TFT LCD (Approx. 230,000 dots) (field of view ratio about 100%)
Flash:	Flash range: [ISO AUTO] Approx. 30 cm (0.99 feet) to 6.3 m (20.7 feet) (Wide) AUTO, AUTO/Red-eye reduction, Forced flash ON (Forced ON/Red-eye reduction), Forced flash OFF (, Slow sync./Red-eye reduction)
Microphone:	Monaural
Speaker:	Monaural
Recording media:	Built-in Memory (Approx. 50 MB)/SD Memory Card/SDHC Memory Card
Picture size	
Still picture:	When the aspect ratio setting is [4:3] 4000×3000 pixels, 3264×2448 pixels 2560×1920 pixels, 2048×1536 pixels, 1600×1200 pixels, 640×480 pixels When the aspect ratio setting is [3:2] 4000×2672 pixels, 3264×2176 pixels 2560×1712 pixels, 2048×1360 pixels When the aspect ratio setting is [16:9] 4000×2248 pixels, 3264×1840 pixels 2560×1440 pixels, 1920×1080 pixels
Motion pictures:	848×480 pixels (Only when using a Card)/ 640×480 pixels (Only when using a Card)/ 320×240 pixels
Quality:	Fine/Standard
Recording file format	
Still Picture:	JPEG (based on “Design rule for Camera File system”, based on “Exif 2.21” standard)/DPOF corresponding
Motion pictures:	“QuickTime Motion JPEG” (motion pictures with audio)
Interface	
Digital:	“USB 2.0” (Full Speed) ∗ Data from the PC can not be written to the camera using the USB connection cable.
Analogue video/audio:	NTSC/PAL Composite (Switched by menu), Audio line output (monaural)
Terminal [AV OUT/DIGITAL]:	Dedicated jack (8 pin)
Dimensions:	Approx. 97.0 mm (W)×54.4 mm (H)×21.7 mm (D) [Approx. 3 13/16″ (W)×2 1/8″(H)×7/8″ (D)] (excluding the projecting parts)
Mass:	Approx. 117 g/4.13 oz (excluding card and battery) Approx. 139 g/4.90 oz (with card and battery)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating humidity:	10% to 80%
Battery Charger (Panasonic DE-A60A):	Information for your safety
Input:	110 V to 240 V～50/60 Hz, 0.2 A
Output:	CHARGE 4.2 V⎓0.65 A
Battery Pack (lithium-ion) (Panasonic DMW-BCF10E):	Information for your safety
Voltage/capacity (Minimum):	3.6 V/940 mAh

TABLE OF CONTENTS

PAGE

1 SERVICE NAVIGATION ---------- 3
- 1.1. INTRODUCTION ---------- 3
- 1.2. Important Notice 1:(Other than U.S.A. and Canadian Market) ---------- 3
- 1.3. About the Lens Unit ---------- 3

2 INITIAL SETTINGS ---------- 4

3 Disassembly and Assembly Instructions ---------- 7
- 3.1. Disassembly and Assembly Instructions ---------- 7
- 3.2. Assembly Procedure for the Lens ---------- 9
- 3.3. Removal of the CCD Unit ---------- 11
- 3.4. Removal of the Focus Motor Unit ---------- 12
- 3.5. The Applyment of Grease Method ---------- 12

4 DIAGRAMS ---------- 13
- 4.1. Overall Block Diagram ---------- 13
- 4.2. Flash Top Schematic Diagram ---------- 14
- 4.3. CCD Flex Schematic Diagram ---------- 15
- 4.4. CCD Flex P.C.B. ---------- 16

5 REPLACEMENT PARTS LIST ---------- 17
- 5.1. Electrical Parts Section ---------- 17
- 5.2. Frame and Casing Section ---------- 18

PAGE
- 5.3. Packing Parts and Accessories Section (1) ------ 20
- 5.4. Packing and Accessories Section (2) ---------- 22

1 SERVICE NAVIGATION

1.1. INTRODUCTION

This Service Manual contains technical information which will help service personnel to understand and service the Digital Camera
Digital Camera; DMC-FS12 series
The Digital Camera DMC-FS12 series have been developed based on DMC-FS7 series.
Since this Service Manual does not cover the same part which is already described in the Service Manual for DMC-FS7 series, when servicing, refer to the descriptions in the Service Manual for ;
DMC-FS7P/PC/PR/PU/EB/EE/EF/EG/EP/GC/GD/GJ/GK/GN/GT: Order No.DSC0902005CE (Service Manual Vol. 1).

1.2. Important Notice 1:(Other than U.S.A. and Canadian Market)

When a part replacement is required for repairing MAIN PCB , replace as an assembled parts.
The following category is/are recycle module part. please send it/them to Central Repair Center.
MAIN PCB : VEP56074F

1.3. About the Lens Unit

Although this service manual (for DMC-FS12) is designed based on service manual for DMC-FS7,
the lens unit for DMC-FS12 is only one type.
Therefore, it is able to replace the defective part only.
(Unnecessary to distinguish the lens type. No limitation of the replacement part item described in service manual for FS7.)
Refer to the “Disassembly and Assembly Instructions” and “Exploded views” in details.

2 INITIAL SETTINGS

After replacing the MAIN PCB, be sure to perform the initial settings after achieving the adjustment by ordering the following procedure in accordance with model suffix of the unit.

1. IMPORTANT NOTICE:

Before proceeding Initial settings, be sure to read the following CAUTIONS.

CAUTION 1:(INITIAL SETTINGS)

---AFTER REPLACING THE MAIN P.C.B. ---

*.The model suffix can be chosen **JUST ONE TIME**.

*.Once one of the model suffix has been chosen, the model suffix lists will not be displayed, thus, it can not be changed.

[NOTE:Only for "EG, EP, EB and EE" models]

*.When one of the "EG, EP, EB and EE" has been chosen, only "EG, EP, EB and EE" are displayed from second times.

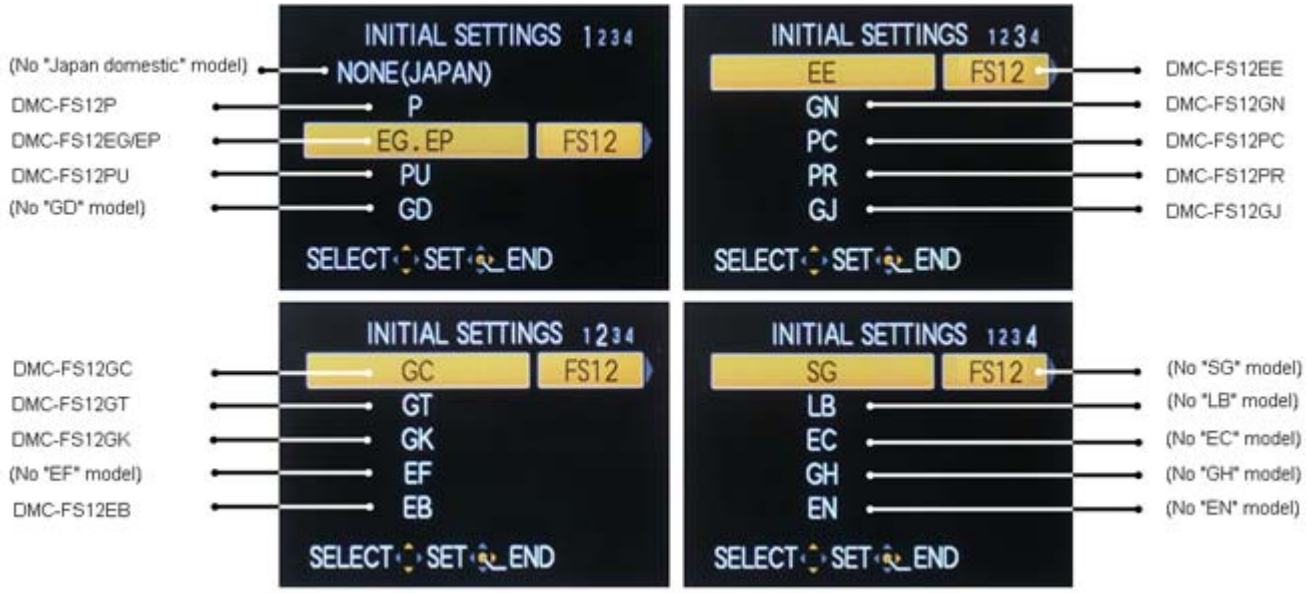
CAUTION 2:(Stored picture image data in the unit)

This unit employs "Built-in Memory" for picture image data recording.(Approx.50MB)
After proceeding "INITIAL SETTINGS", the picture image data stored in the unit is erased.

2. PROCEDURES:

- Precautions: Read the above “CAUTION 1” and “CAUTION 2”, carefully.
- Preparation:
  1. Attach the Battery or AC Adaptor with a DC coupler to the unit.
  2. Set the recording mode to the [NORMAL PICTURE] mode.
     (Press the [MODE] button and select the [NORMAL PICTURE] by pressing the “[UP] and [DOWN] of Cursor buttons”, then press the [MENU/SET] button.)
     NOTE:
     If the unit is other than [NORMAL PICTURE] mode, it does not display the initial settings menu.
- **Step 1. The temporary cancellation of “INITIAL SETTINGS”:**
  Set the [REC]/[PLAYBACK] selector switch to “[REC] (Camera mark)”.
  While keep pressing “[UP] of Cursor button” and [iA] button simultaneously, turn the Power on.
- **Step 2. The cancellation of “INITIAL SETTINGS”:**
  Set the [REC]/[PLAYBACK] selector switch to “[PLAYBACK]”.
  Press “[UP] of Cursor button” and [iA] button simultaneously, then turn the Power off.
- **Step 3. Turn the Power on:**
  Set the [REC]/[PLAYBACK] selector switch to “[REC] (Camera mark)”, and then turn the Power on.
- **Step 4. Display the INITIAL SETTING:**
  NOTE:
  If the unit is other than [NORMAL PICTURE] mode, it does not display the initial settings menu.
  While keep pressing [MENU/SET] and “[RIGHT] of Cursor buttons” simultaneously, turn the Power off.
  The “INITIAL SETTINGS” menu is displayed.
  There are two kinds of “INITIAL SETTINGS” menu form as follows:

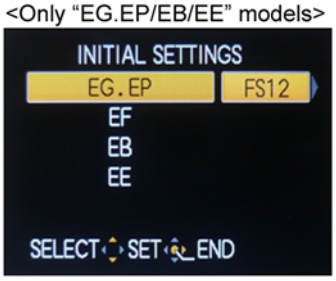
[CASE 1. After replacing MAIN P.C.B.]
When MAIN P.C.B. has just been replaced, all of the model suffix is displayed as follows. (Four pages in total)



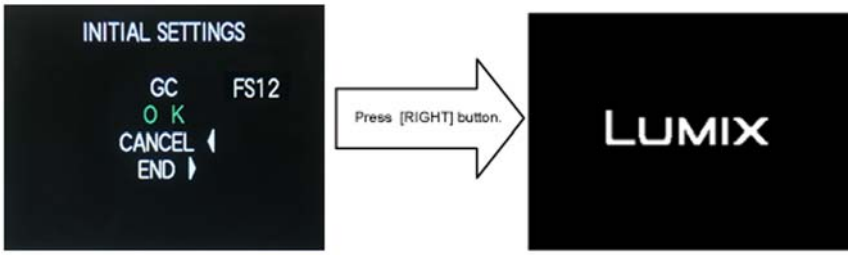
[CASE 2. Other than “After replacing MAIN P.C.B.”]

<Other than “EG.EP/EB/EE” models>

<Only “EG.EP/EB/EE” models>



- **Step 5. Chose the model suffix in “INITIAL SETTINGS”: (Refer to “CAUTION 1”)**
  [Caution: After replacing MAIN P.C.B.]
  The model suffix can been chosen, **JUST ONE TIME.**
  Once one of the model suffix have been chosen, the model suffix lists will not be displayed, thus, it can be changed.
  Therefore, select the area carefully.
  Select the area with pressing “[UP] / [DOWN] of Cursor buttons”.
- **Step 6. Set the model suffix in “INITIAL SETTINGS”:**
  Press the “[RIGHT] of Cursor buttons”.
  The only set area is displayed, and then press the “[RIGHT] of Cursor buttons” after confirmation.
  (The unit is powered off automatically.)



• **Step 7. CONFIRMATION:**
Confirm the display of “PLEASE SET THE CLOCK” in concernd language when the unit is turned on again.
When the unit is connected to PC with USB cable, it is detected as removable media.

1) As for your reference, major default setting condition is as shown in the following table.

• Default setting (After “INITIAL SETTINGS”)

	MODEL	VIDEO OUTPUT	LANGUAGE	DATE	REMARKS
a)	DMC-FS12P	NTSC	English	Month/Date/Year	
b)	DMC-FS12EG	PAL	English	Date/Month/Year	
c)	DMC-FS12EP	PAL	English	Date/Month/Year	
d)	DMC-FS12PU	NTSC	English	Month/Date/Year	
e)	DMC-FS12GC	PAL	English	Date/Month/Year	
f)	DMC-FS12GT	NTSC	Chinese (traditional)	Year/Month/Date	
g)	DMC-FS12GK	PAL	Chinese (Simplified)	Year/Month/Date	
h)	DMC-FS12EB	PAL	English	Date/Month/Year	
i)	DMC-FS12EE	PAL	Russian	Date/Month/Year	
j)	DMC-FS12GN	PAL	English	Date/Month/Year	
k)	DMC-FS12PC	NTSC	English	Month/Date/Year	
l)	DMC-FS12PR	PAL	English	Date/Month/Year	
m)	DMC-FS12GJ	PAL	Thai	Date/Month/Year	

3 Disassembly and Assembly Instructions

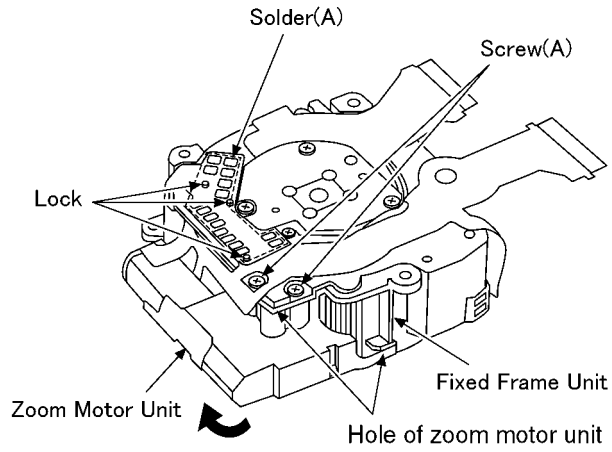
3.1. Disassembly and Assembly Instructions

NOTE: When Disassembling and Assembling for the Lens

1. To minimize the possibility of the CCD being dirt, perform disassemble and/or assemble under the condition of the CCD is being mounted.
   Disassembling procedures for the CCD unit, refer to item 3.3.
2. Take care that the dust and dirt are not entered into the lens.
   In case of the dust is putted on the lens, blow off them by airbrush.
3. Do not touch the surface of lens.
4. Use lens cleaning KIT (BK)(VFK1900BK).
5. Apply the grease (RFKZ0472/VFK1850) to the point where is shown to “Grease apply” in the figure.
   When the grease is applied, use a toothpick and apply thinly.
6. When repair the fixed frame, drive frame and direct frame, must be unit exchange.

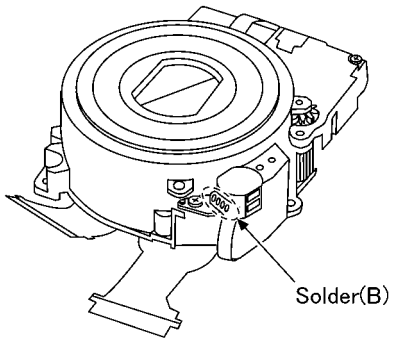
3.1.1. Removal of the Zoom Motor Unit and Lens Flex P.C.B. Unit

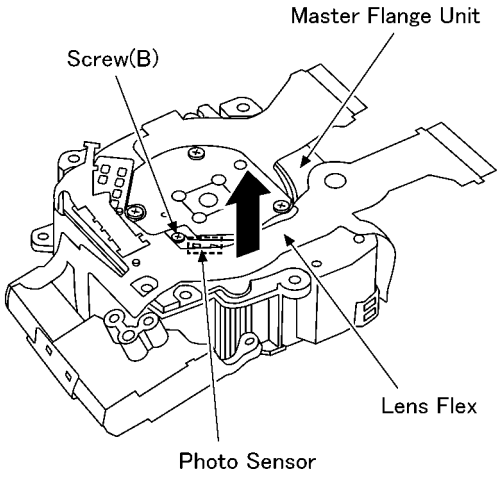
1. Remove the 1 solder (A).
2. Remove the 3 locks.
3. Unscrew the 2 screws (A).
4. Remove the zoom motor unit to the indicated by arrow.
5. Remove the 1 solder (B).
6. Unscrew the 1 screw (B).
7. Remove the lens flex to the indicated by arrow.



NOTE: (When Assembling)

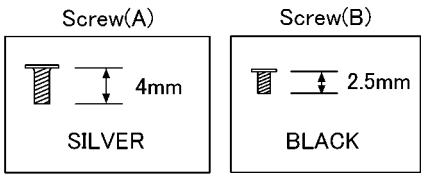
• Align the convex of fixed frame unit and hole of zoom motor unit, and then install them.



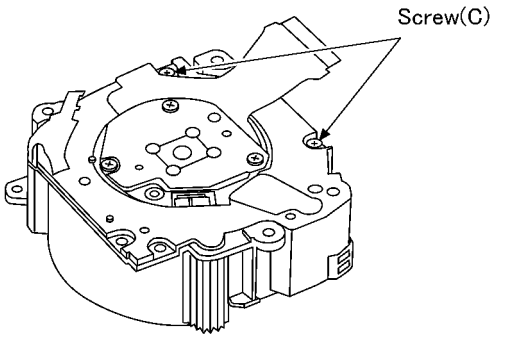


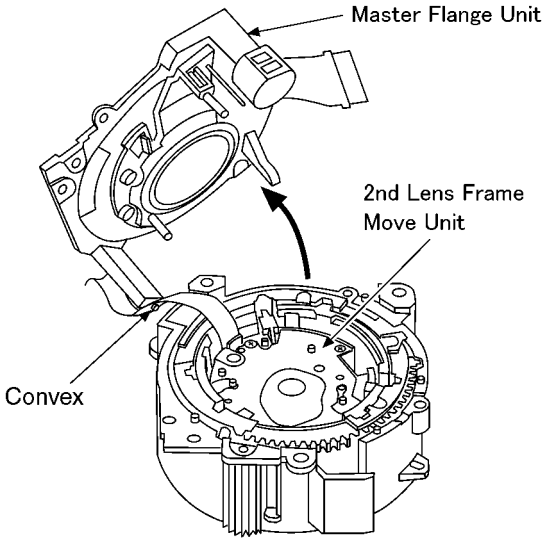
NOTE: (When Assembling)

・Take care not to damage the flex.



3.1.2. Removal of the Master Flange Unit





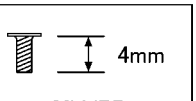
NOTE: (When Disassembling)

- Remove the flex of 2nd lens frame move unit from covex of the master flange unit.
- Take care not to damage the flex.

NOTE: (When Assembling)

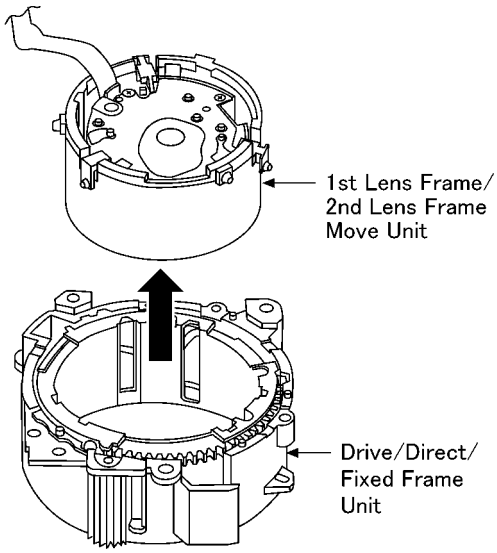
- Refer to "THE APPLYMENT OF GREASE METHOD" when installing the master flange unit.

Screw(C)



SILVER

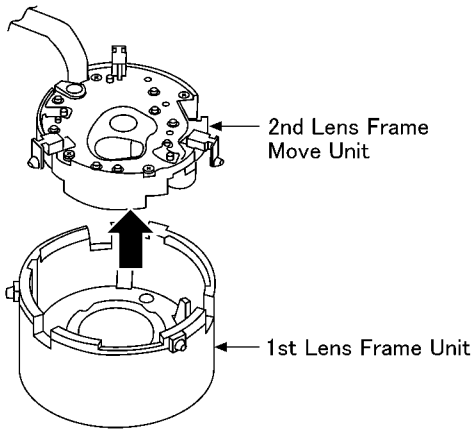
3.1.3. Removal of the 1st Lens Frame/2nd Lens Frame Move Unit



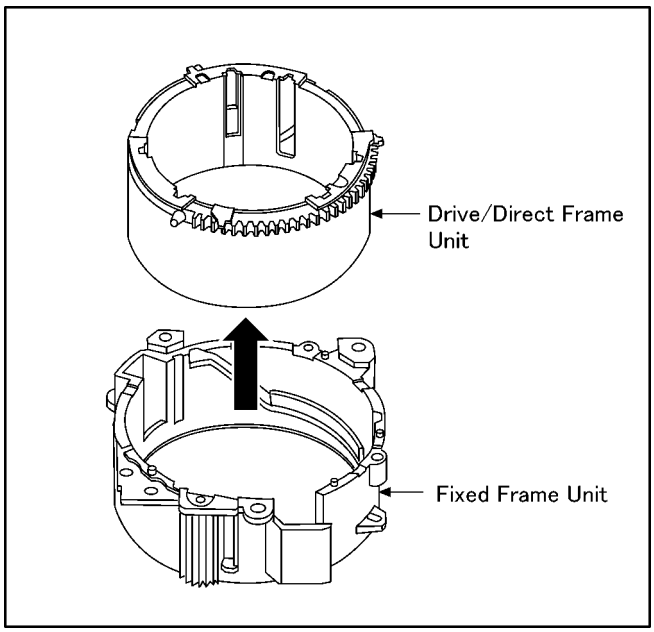
NOTE: (When Disassembling)

- When lift the1st lens frame/2nd lens frame move unit, Take care not to put fingerprint of the lens.

3.1.4. Removal of the 2nd Lens Frame Move Unit



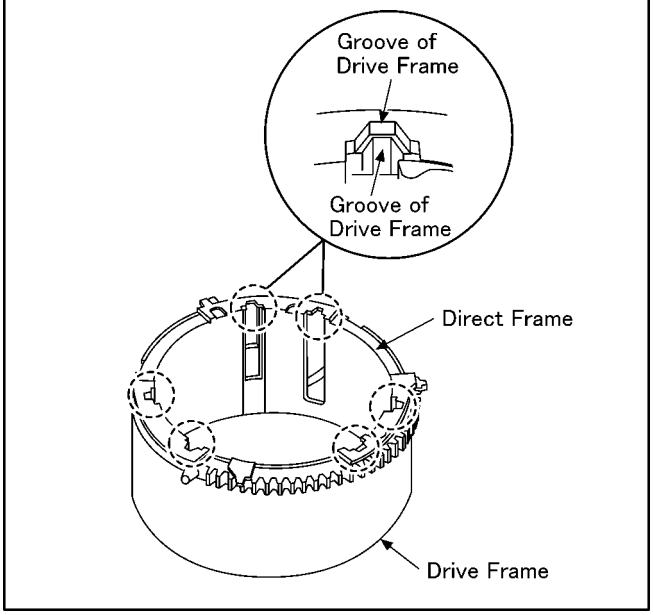
3.1.5. Removal of the Drive/Direct Frame Unit



3.2. Assembly Procedure for the Lens

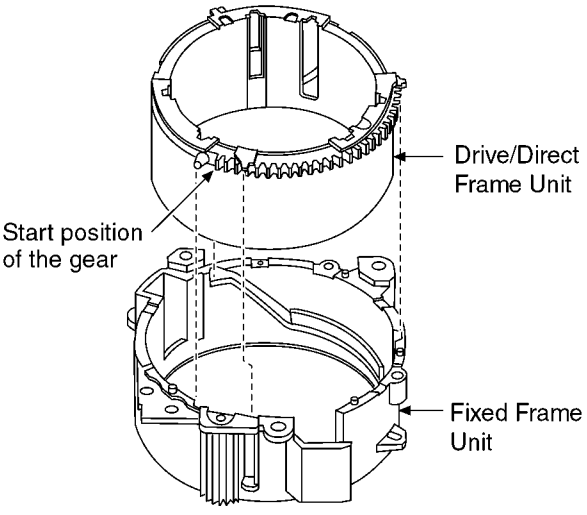
3.2.1. Phase alignment of the Direct Frame and Drive Frame Unit

・ Align the drive frame and direct frame.
(six groove places)



3.2.2. Phase alignment of the Drive/Direct Unit and Fixed Frame Unit

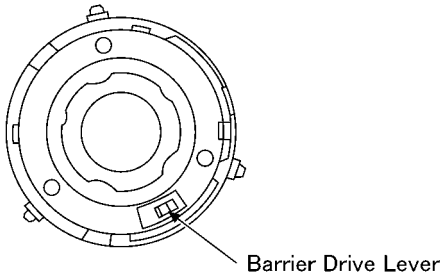
• Insert the drive/direct frame unit to the fixed frame unit.



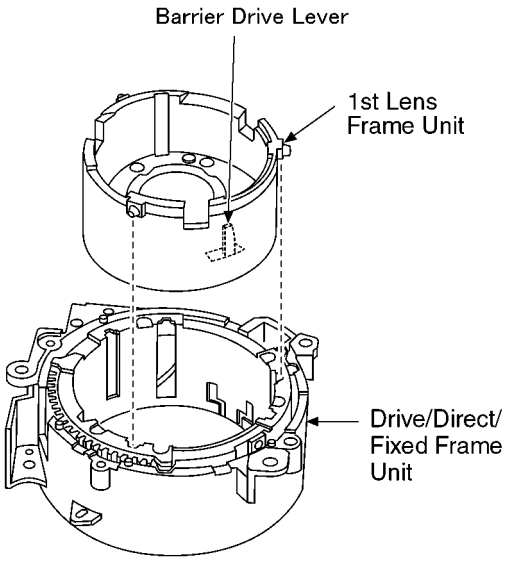
NOTE: (When Assembling)

・ With aligning the phase of the drive/direct frame unit , confirm the gear of drive unit is engaged with the fixed frame unit firmly.

3.2.3. Assembly for the 1st Lens Frame Unit and Fixed/Drive/Direct Frame Unit



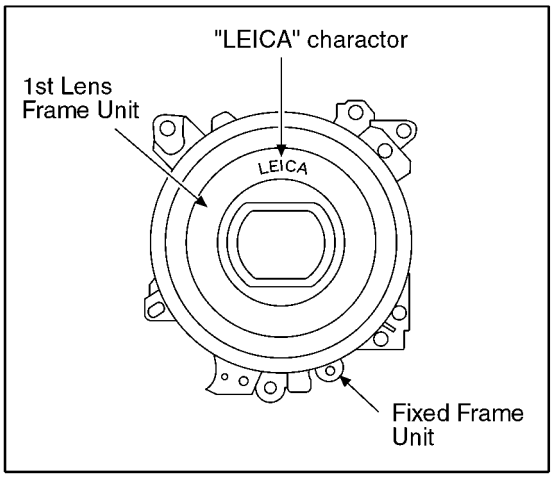
- Inserts the 1st lens frame unit to the drive/direct/fixed frame unit so that the barrier drive lever may become the position of the figure below.



NOTE: (When Assembling)
Take care not to put fingerprint of the lens.

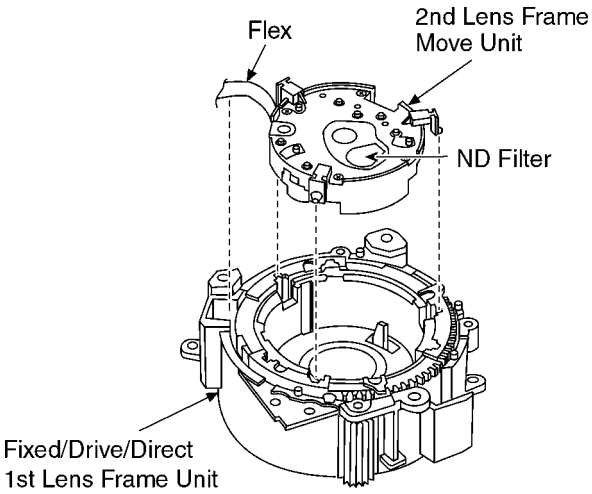
FRONT VIEW

- Install the 1st lens frame unit so that the "LEICA" charactor may become the position of the figure below.

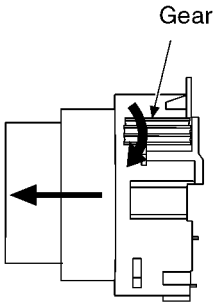


3.2.4. Assembly for the 2nd Lens Frame Move Unit and Fixed/Drive/Direct Frame/1st Lens Frame Unit

- Inset the 2nd frame move unit to the Fixed/Drive/Direct 1st Lens Frame Unit.



NOTE: (When Assembling)
Take care not to put fingerprint of the ND filter and lens.

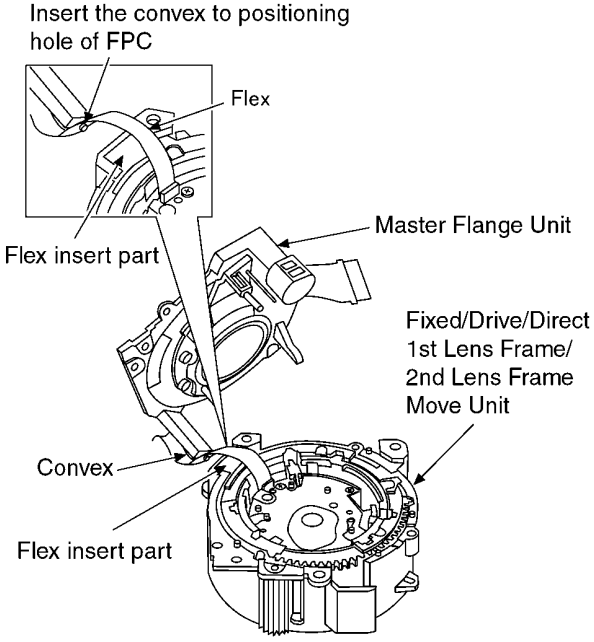


NOTE: (When Assembling)

- Turn the gear of the fixed frame unit in the direction of the arrow, and then confirm to operate smoothly.

3.2.5. Assembly for the Master Flange Unit and Fixed/Drive/Direct Frame/ 1st Lens Frame/2nd Lens Frame Move Unit

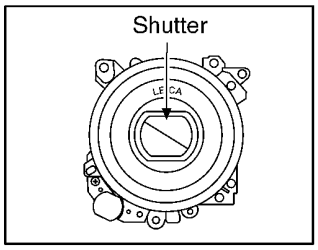
- Align the flex insert part of fixed frame unit and convex of the master flange unit, and then insert the master flange unit.

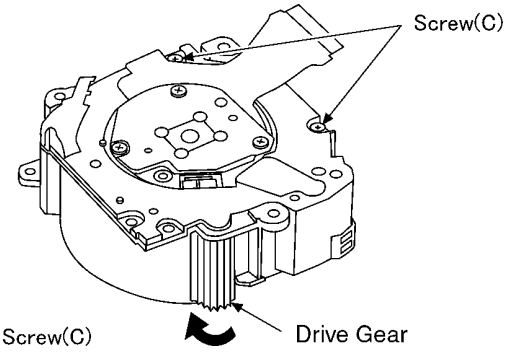


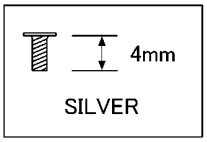
NOTE: (When Assembling)

- Take care not to damage the flex.
- Refer to "THE APPLYMENT OF GREASE METHOD" when installing the master flange unit.

- Turn the Drive Gear in the direction of an arrow, and then confirm the lens shutter is closed.



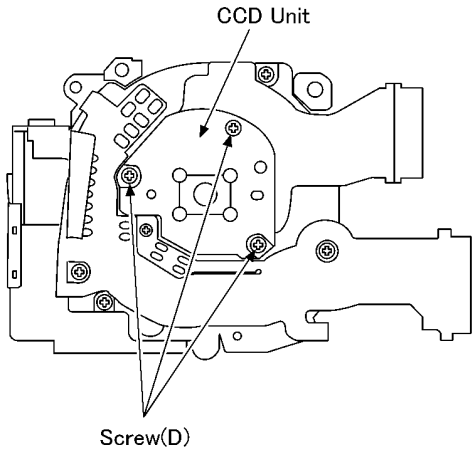


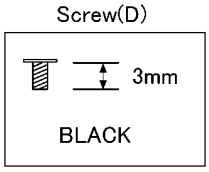


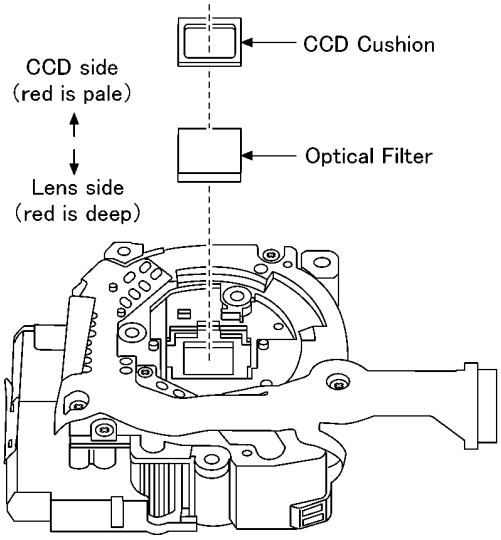
3.3. Removal of the CCD Unit

To prevent the CCD unit from catching the dust and dirt, do not remove the CCD unit except for replacing.

- Screw(D) × 3
- CCD Cushion × 1
- Optical Filter × 1







NOTE: (When Assembling)

Definitions of mount side of Optical filter.

*Set the optical filter under the condition of reflecting the fluorescent lamp can be seen by your eyes.

*Although depth of the red color may be changed in accordance with seeing angle, compare the deepest red color in both sides to define each side.

Lens side: red color is deeper than the other side.

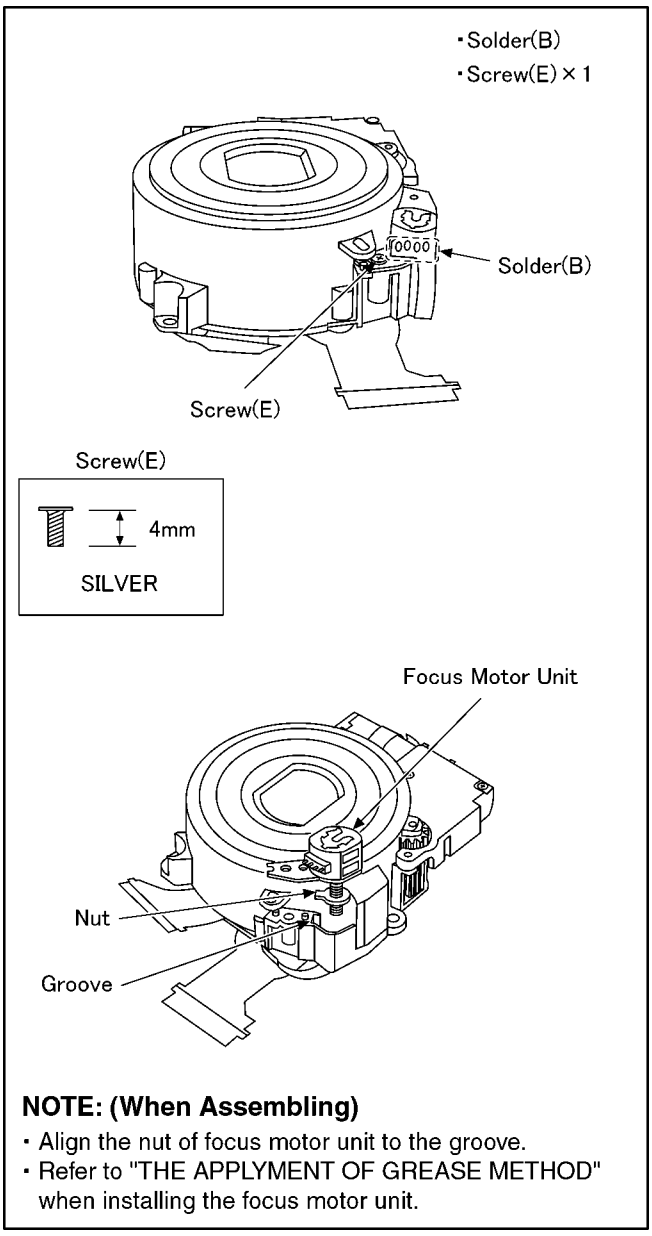
CCD side: red color is paler than the other side.

It can be easy to confirm the red color density on the blue paper.

*The optical filter might stuck to CCD unit.

When replace the CCD unit, remove the optical filter, and then install it with CCD unit.

3.4. Removal of the Focus Motor Unit



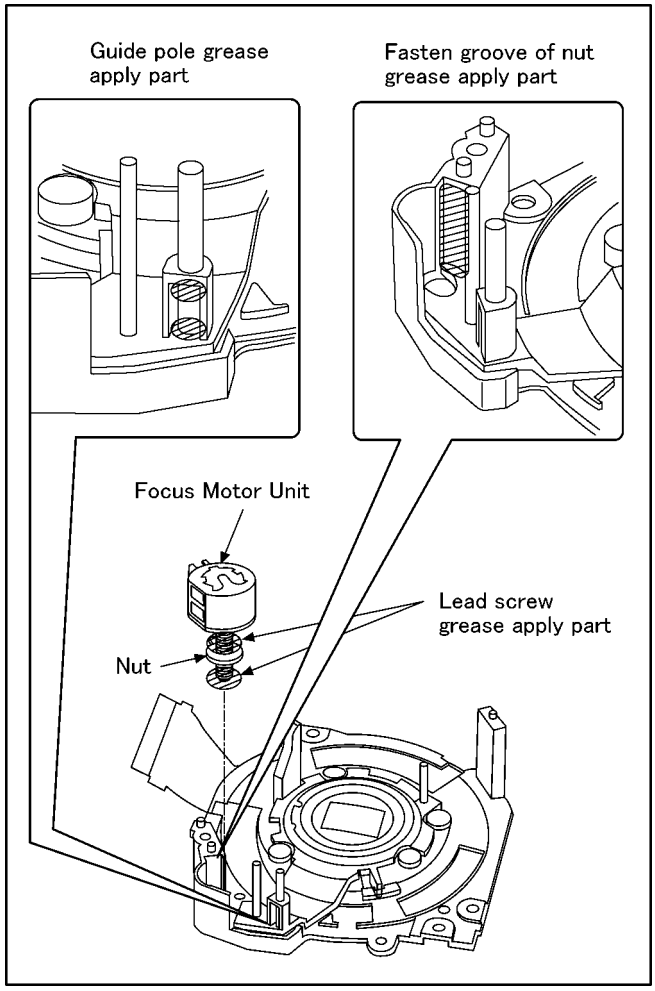
NOTE: (When Assembling)

- Align the nut of focus motor unit to the groove.
- Refer to "THE APPLYMENT OF GREASE METHOD" when installing the focus motor unit.

3.5. The Applyment of Grease Method

The grease apply point of lens unit are as follows.
Apply grease additionally in the specified position if necessary.
When the grease is applied, use a toothpick and apply thinly.

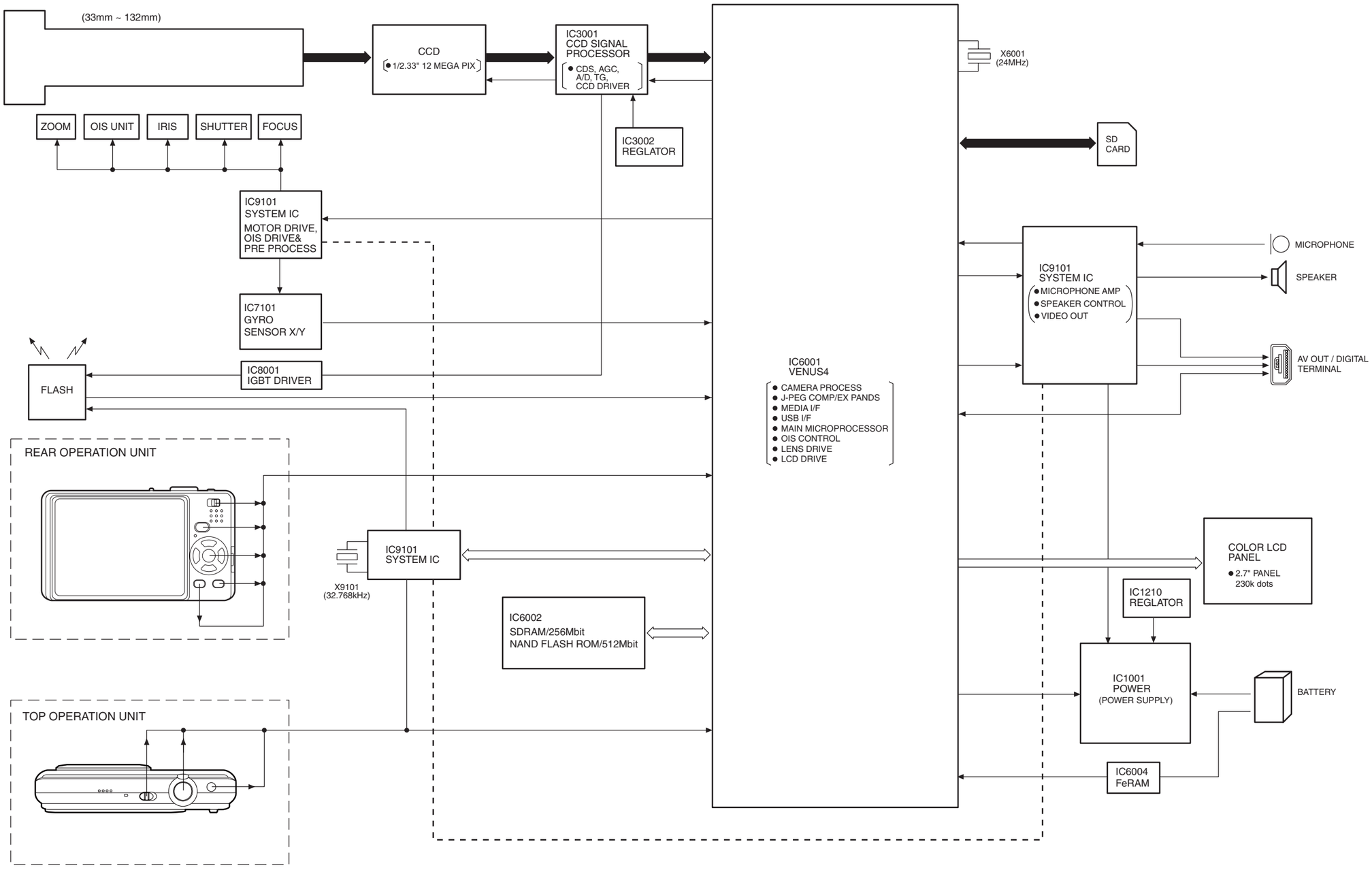
- Lead screw
  - Grease: VFK1850 (Furoyl type)
  - Amount of apply: 2 - 4 mg
- Guide pole/Fasten groove of nut
  - Grease: RFKZ0472
  - Amount of apply: 2 - 4 mg



4 DIAGRAMS

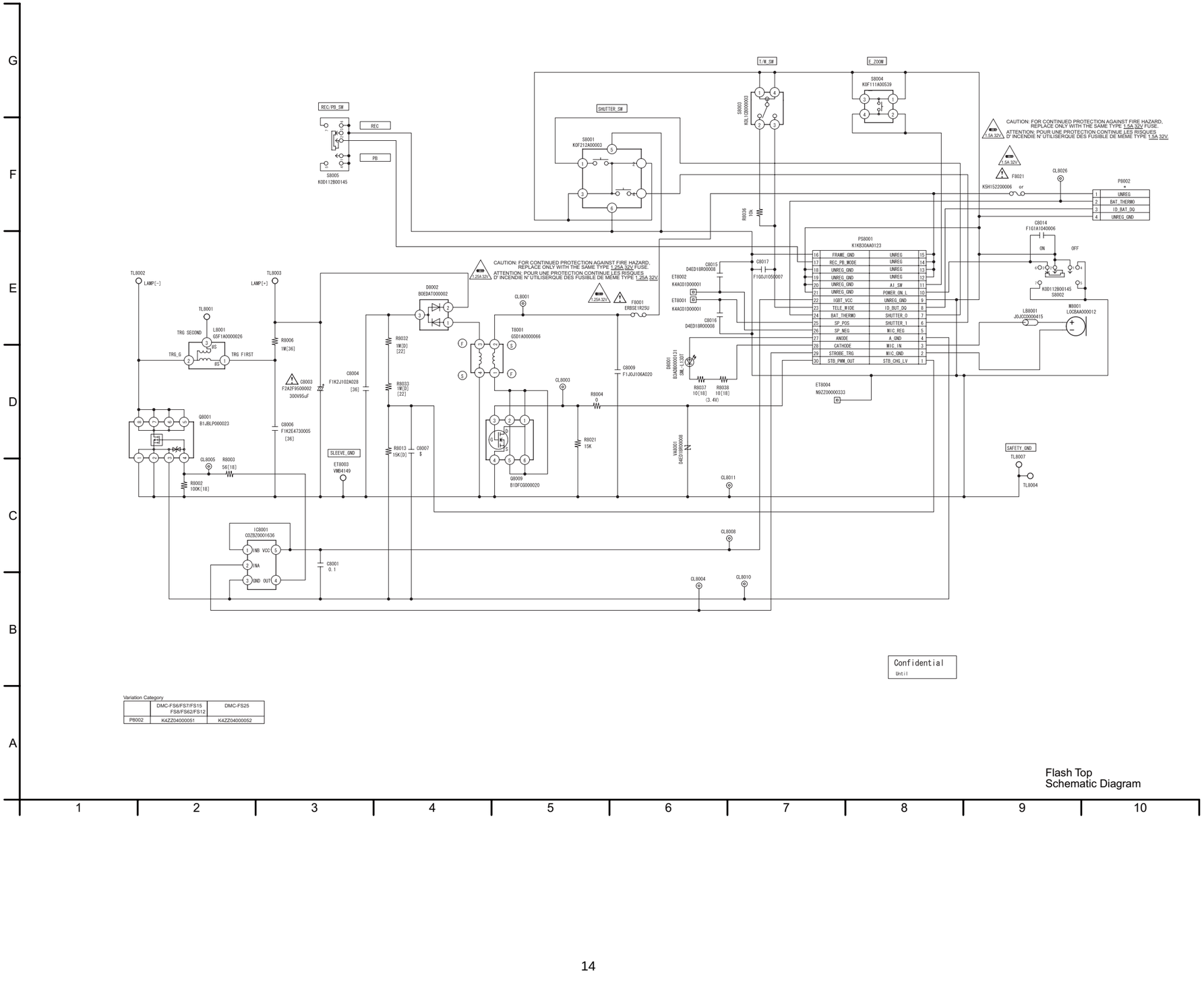
4.1. Overall Block Diagram

◆ OVERALL BLOCK DIAGRAM



DMC-FS12 OVERALL BLOCK DIAGRAM

4.2. Flash Top Schematic Diagram

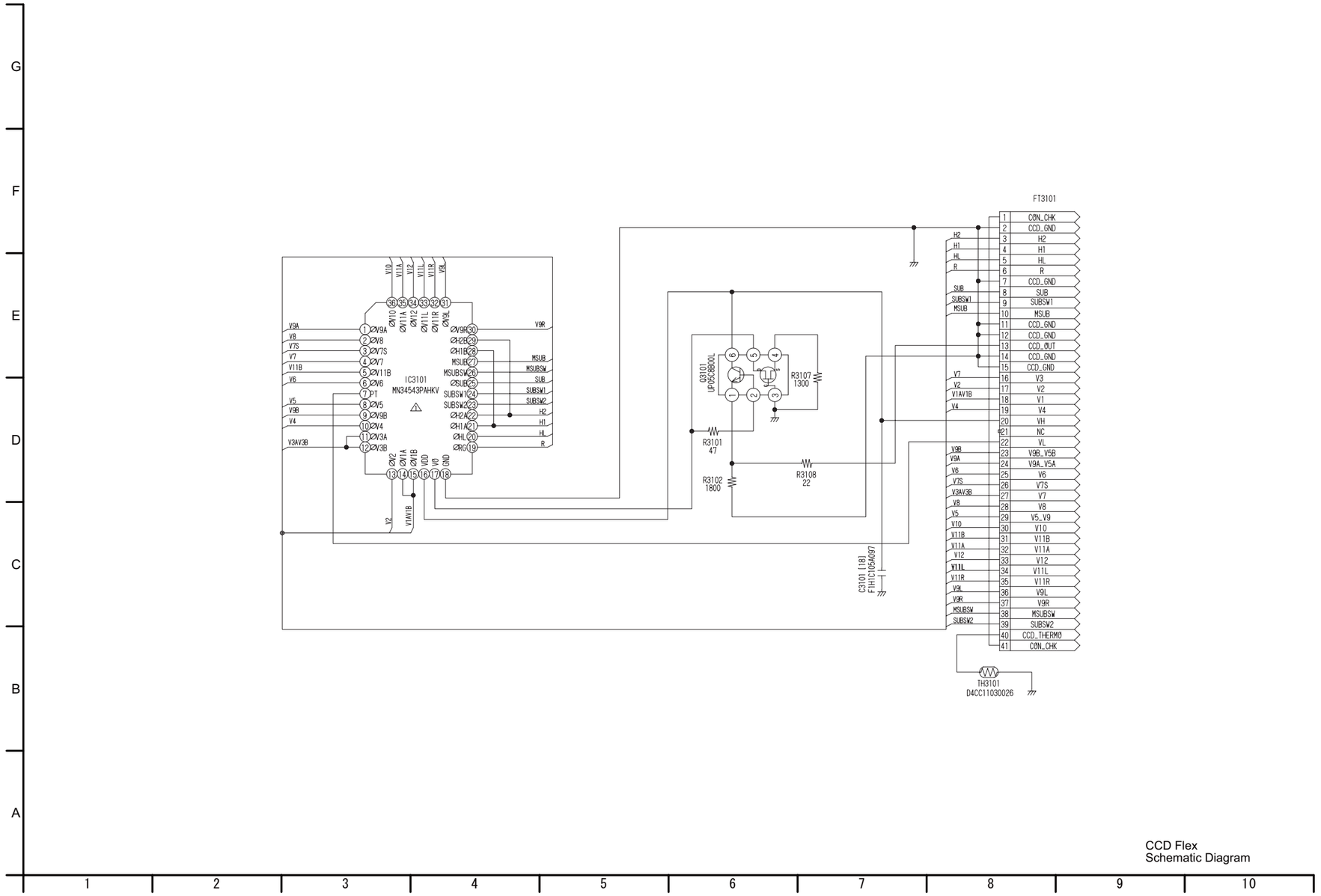


Variation Category

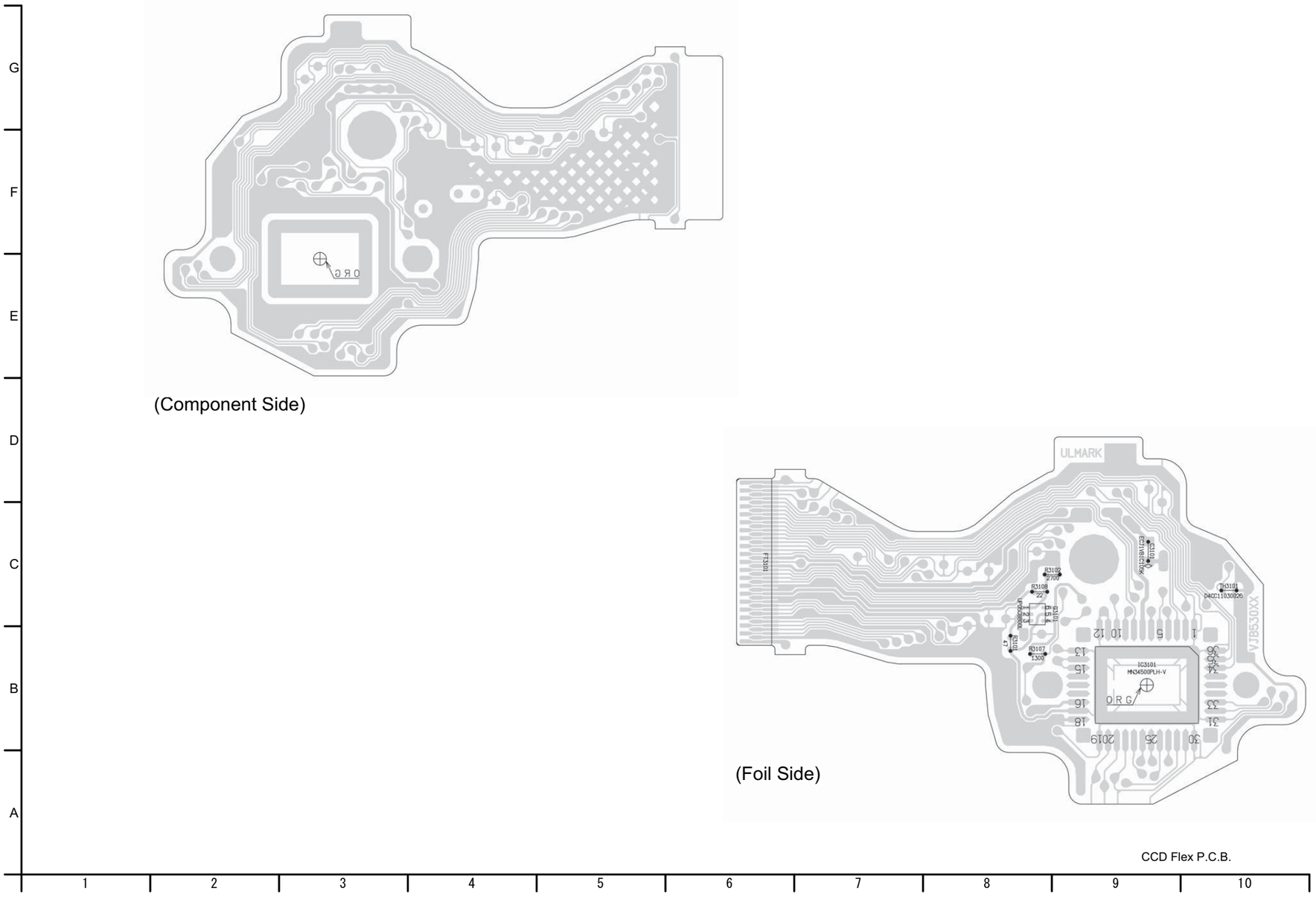
	DMC-FS6/FS7/FS15 FS8/FS62/FS12	DMC-FS25
P8002	K4ZZ04000051	K4ZZ04000052

Flash Top
Schematic Diagram

4.3. CCD Flex Schematic Diagram



4.4. CCD Flex P.C.B.



(Component Side)

(Foil Side)

CCD Flex P.C.B.

5 REPLACEMENT PARTS LIST

Note:
1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
   Components identified with the mark ⚠ have the special characteristics for safety.
   When replacing any of these components, use only the same type.
3. Unless otherwise specified,
   All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICRO-FARADS (uf), P=uuF.
4. The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
5. Supply of CD-ROM, in accordance with license protection, is allowable as replacement parts only for customers who accidentally damaged or lost their own.

E.S.D. standards for Electrostatically Sensitive Devices, refer to PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES section.

Definition of Parts supplier:

1. **Parts marked with [ENERGY] in the remarks column are supplied from Panasonic Corporation Energy Company.**
2. **Parts marked with [SPC] in the remarks column are supplied from AVC-CSC-SPC. Others are supplied from PAVCSG.**

5.1. Electrical Parts Section

COMPARISON CHART:

The following table shows difference between DMC-FS7 series and DMC-FS12 series.

Ref No.	Original Part No.	New Part No.	Part Name & Description	Pcs	Remarks
	DMC-FS7 series	DMC-FS12 series			
C3101	-----	F1H1C105A097	C.CAPACITOR CH 16V 1U	1	[SPC]
Q3101	-----	UP05C8B00L	TRANSISTOR	1	[SPC] E.S.D.
R3101	-----	ERJ2GEJ470	M.RESISTOR CH 1/16W 47	1	[SPC]
R3102	-----	ERJ2GEJ182	M.RESISTOR CH 1/16W 18	1	[SPC]
R3107	-----	ERJ2GEJ132	M.RESISTOR CH 1/16W 1.3K	1	[SPC]
R3108	-----	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	[SPC]
TH3101	-----	D4CC11030026	THERMISTORS	1	[SPC]

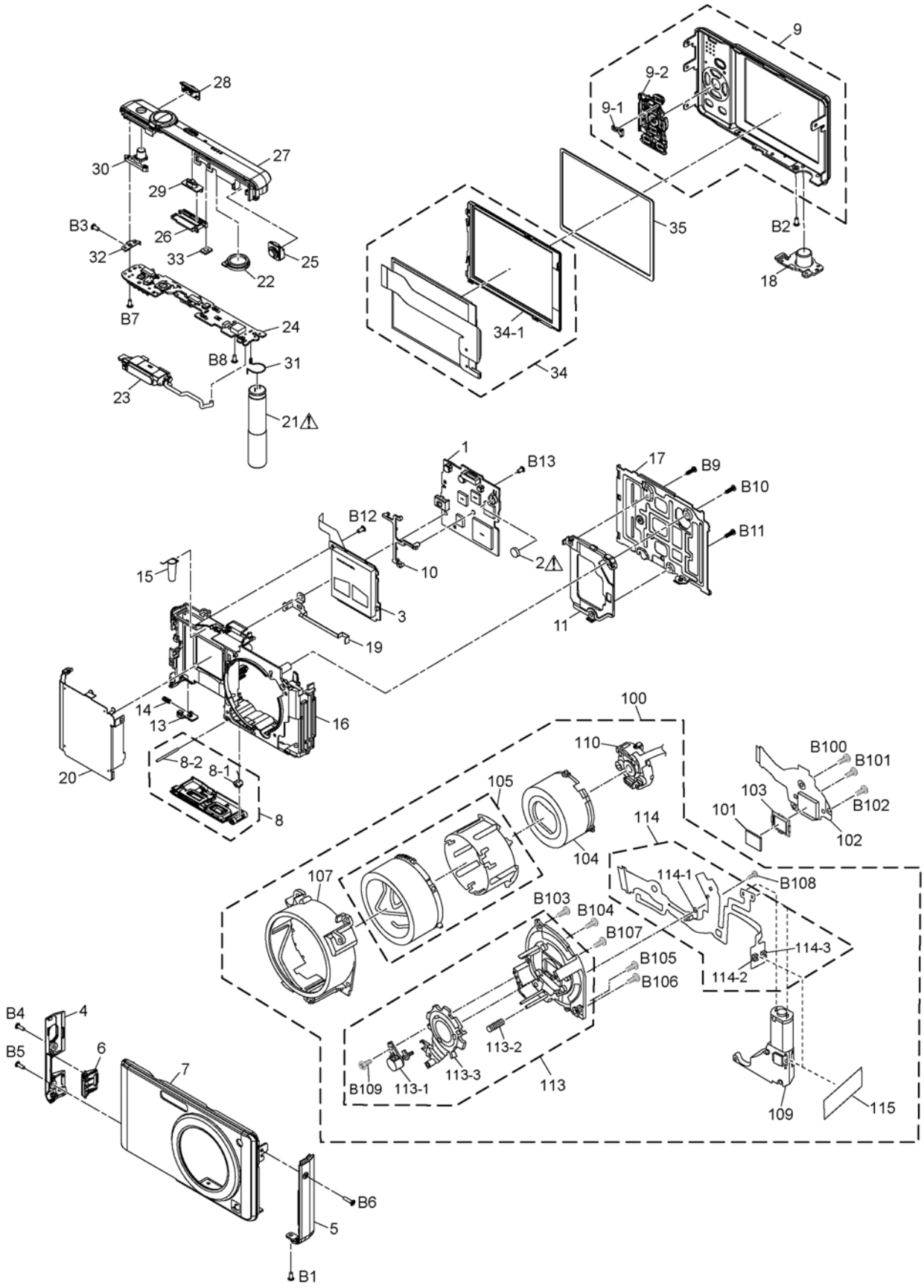
5.2. Frame and Casing Section

COMPARISON CHART:

The following table shows difference between DMC-FS7 series and DMC-FS12 series.

Ref No.	Original Part No.	New Part No.	Part Name & Description	Pcs	Remarks
	DMC-FS7 series	DMC-FS12 series			
1	VEP56074B	VEP56074F	MAIN P.C.B.	1	(RTL) E.S.D.
7	VYK2Y41	VYK3J43	FRONT CASE UNIT	1	(-S)
7	VYK2Y45	VYK3J44	FRONT CASE UNIT	1	(-K)
7	VYK2Y50	VYK3J45	FRONT CASE UNIT	1	(-A)
7	VYK2Y47	VYK3J46	FRONT CASE UNIT	1	(-P)
7	VYK2Y53	VYK3J47	FRONT CASE UNIT	1	(-G)
9	VYK2Y42	VYK3J64	REAR CASE UNIT	1	(-S)
9	VYK2Y46	VYK3J65	REAR CASE UNIT	1	(-K)
9-2	VGU0D72	VGU0D72	CORSOR BUTTON	1	(-S,-A,-P,-G)
		VGU0E98	CORSOR BUTTON	1	(-K)
24	VEP58076C	VEP58076F	FLASH TOP P.C.B.	1	(RTL) E.S.D.
27	VYK3H28	VYK3L29	TOP ORNAMENT UNIT	1	
28	VGU0C05	VGU0C05	REC/PLAYBACK SELECTOR KNOB	1	(-S,-A,-P,-G)
		VGU0E99	REC/PLAYBACK SELECTOR KNOB	1	(-K)
100	VXW1000	VXW1059	LENS UNIT(W/O CCD)	1	[SPC]
101	VDL2317	VDL2046	OPTICAL FILTER	1	[SPC]
102	VEK0N42	VEK0P39	CCD UNIT	1	[SPC]
103	VMX3707	VMX3707	CCD CUSHION	1	[SPC]
104	VXP3085	-----	1ST LENS FRAME UNIT (For YM-Type and CX-Type)	---	[SPC]
104	VXP3136	-----	1ST LENS FRAME UNIT (For CP-Type)	---	[SPC]
104	-----	VXP3073	1ST LENS FRAME UNIT	1	[SPC]
105	L6DA8BEC0003	-----	ZOOM MOTOR	---	[SPC]
105	-----	VXP3117	DRIVE/DIRECT FRAME UNIT	1	[SPC]
106	B3NBA0000011	-----	PHOTO SENSOR	---	[SPC]
107	B3NBA0000011	-----	PHOTO SENSOR	---	[SPC]
107	-----	VXP3119	FIXED FRAME UNIT	1	[SPC]
109	-----	L6DA8BEC0003	ZOOM MOTOR	1	[SPC]
110	-----	VXP3114	2ND LENS FRAME UNIT	1	[SPC]
113	-----	VXP3256	MASTER FLANGE UNIT	1	[SPC]
113-1	-----	L6HA64NC0013	FOCUS MOTOR UNIT	1	[SPC]
113-2	-----	VMB4173	FOCUS SPRING	1	[SPC]
113-3	-----	VXP3121	3RD LENS FRAME UNIT	1	[SPC]
114	-----	VEK0L88	LENS FPC UNIT	1	[SPC]
114-1	-----	B3NAA0000132	PHOTO SENSOR	1	[SPC]
114-2	-----	B3NBA0000011	PHOTO SENSOR	1	[SPC]
114-3	-----	B3NBA0000011	PHOTO SENSOR	1	[SPC]
115	-----	VZT0815	BARRIER	1	[SPC]
B108	-----	VHD2020	SCREW	1	[SPC]
B109	-----	XQN14+CJ4FN	SCREW	1	[SPC]

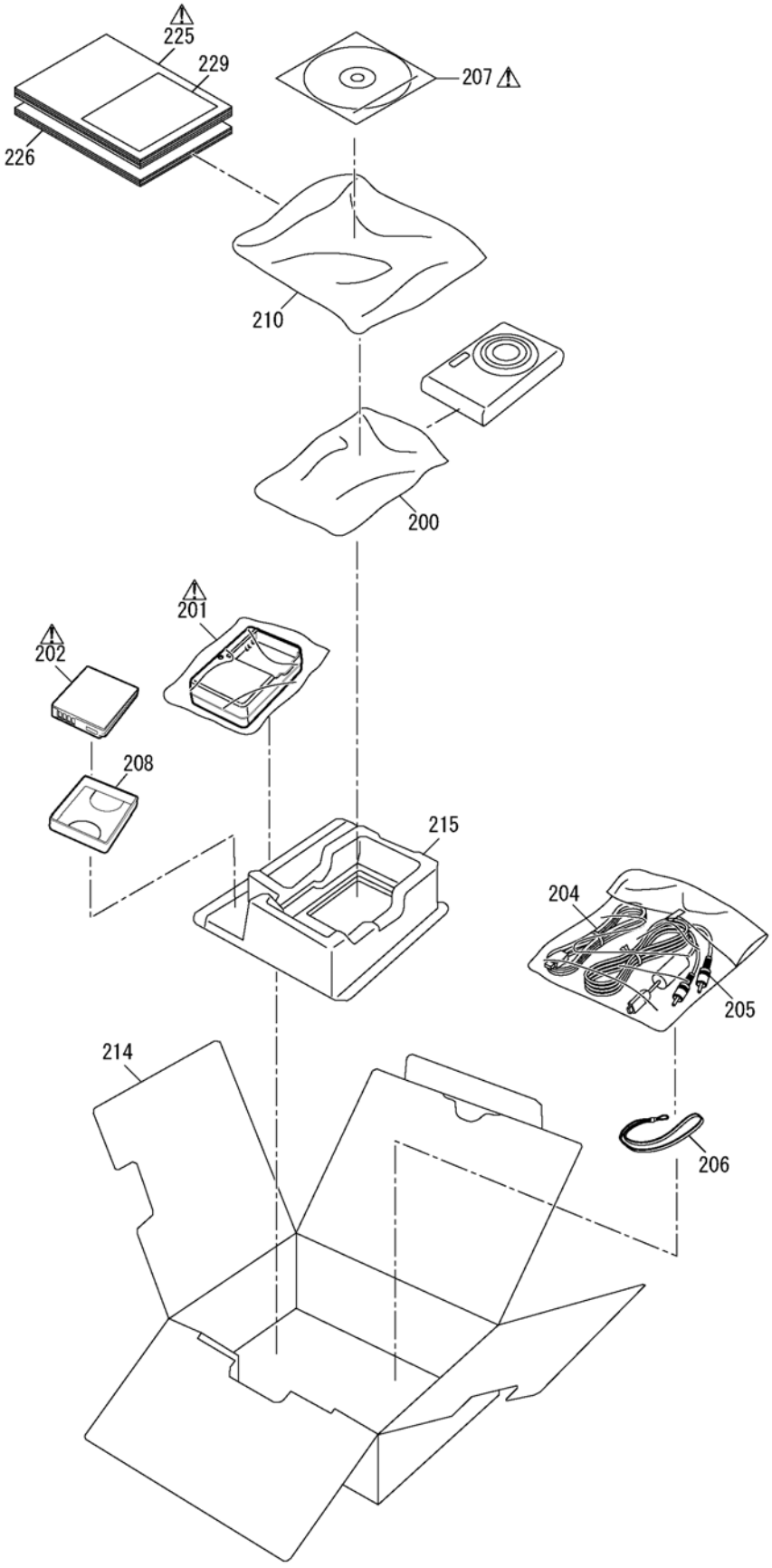
Frame and Casing Section



5.3. Packing Parts and Accessories Section (1)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	200	VPF1302	CAMERA BAG	1	P,PC,PU
⚠	201	DE-A59BA/SX	BATTERY CHARGER	1	P,PC,PU
⚠	202	-----	BATTERY	1	P,PC,PU
	204	K1HA08AD0001	USB CABLE W/PLUG	1	P,PC,PU
	205	K1HA08CD0027	AV CABLE W/PLUG	1	PU
	206	VFC4297-B	HAND STRAP	1	P,PC,PU
⚠	207	VFF0512-S	CD-ROM (SOFTWARE/INSTRUCTION BOOK)	1	[SPC] P,PC,PU See “Notes”
	208	VGQ0D56	BATTERY PROTECTION CASE	1	P,PC,PU
	210	VPF1100	BAG, POLYETHYLENE	1	P,PC,PU
	214	VPK3909	PACKING CASE	1	PS,PCS
	214	VPK3933	PACKING CASE	1	PUP
	214	VPK3937	PACKING CASE	1	PUA
	214	VPK3940	PACKING CASE	1	PUG
	214	VPK3939	PACKING CASE	1	PG,PCG
	214	VPK3936	PACKING CASE	1	PA,PCA
	214	VPK3932	PACKING CASE	1	PP,PCP
	214	VPK3910	PACKING CASE	1	PUS
	214	VPK3913	PACKING CASE	1	PK,PCK
	214	VPK3914	PACKING CASE	1	PUK
	215	VPN6649	CUSHION	1	P,PC,PU
⚠	225	VQT2D42	SIMPLIFIED O/I (ENGLISH/SPANISH)	1	P
⚠	225	VQT2D44	SIMPLIFIED O/I (SPANISH/PORTUGUESE)	1	PU
⚠	225	VQT2D43	SIMPLIFIED O/I (ENGLISH/CANADIAN FRENCH)	1	PC
	226	VQT2B62	O/I SOFTWARE (SPANISH/PORTUGUESE)	1	PU,PR
	226	VQT2D88	O/I SOFTWARE (ENGLISH/CANADIAN FRENCH)	1	P,PC
	229	VQL1L48-6A	ORERATING LABEL	1	PC

Packing Parts and Accessories Section (1)



5.4. Packing and Accessories Section (2)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	300	VPF1302	CAMERA BAG	1	EXCEPT P,PC,PU
⚠	301	DE-A60AA/SX	BATTERY CHARGER	1	EG,EP,EB,GN
⚠	301	DE-A60BB/SX	BATTERY CHARGER	1	EE,GC,GJ,GK
⚠	301	DE-A60DA/SX	BATTERY CHARGER	1	PR
⚠	301	DE-A60CA/SX	BATTERY CHARGER	1	GT
⚠	302	-----	BATTERY	1	EXCEPT P,PC,PU
	304	K1HA08AD0001	USB CABLE W/PLUG	1	EXCEPT P,PC,PU
	305	K1HA08CD0027	AV CABLE W/PLUG	1	PR,GC,GJ,GT,GK
	306	VFC4297-B	HAND STRAP	1	EXCEPT P,PC,PU
	307	VFF0484-S	CD-ROM (SOFTWARE)	1	EG,EP,EE,GJ,GT [SPC] See “Notes”
⚠	307	VFF0512-S	CD-ROM (SOFTWARE/INSTRUCTION BOOK)	1	PR,EB,GC,GN [SPC] See “Notes”
	307	VFF0485-S	CD-ROM (SOFTWARE)	1	GK [SPC] See “Notes”
	308	VGQ0D56	BATTERY PROTECTION CASE	1	EXCEPT P,PC,PU
	310	VPF1100	BAG, POLYETHYLENE	1	EXCEPT P,PC,PU
	314	VPK3911	PACKING CASE	1	PRK,EGK,EPK,EBK,EEK,GCK,GJK,GNK
	314	VPK3935	PACKING CASE	1	GKP
	314	VPK3938	PACKING CASE	1	EPA,GCA,GNA
	314	VPK3934	PACKING CASE	1	PRP,EPP,EBP,EEP,GCP,GJP,GTP
	314	VPK3912	PACKING CASE	1	GKS
	314	VPK3915	PACKING CASE	1	PRK,EGK,EPK,EBK,EEK,GCK,GJK,GNK
	314	VPK3916	PACKING CASE	1	GKK
	315	VPN6663	CUSHION	1	EXCEPT P,PC,PU
	318	VQL1G34-6A	OPERATING LABEL	1	GT
⚠	319	K2CT39A00002	AC CORD W/PLUG	1	EB,GC
⚠	320	K2CP2YY00001	AC CORD W/PLUG	1	GJ
⚠	320	K2CQ29A00002	AC CORD W/PLUG	1	EG,EP,EE,GC
⚠	321	K2CJ29A00002	AC CORD W/PLUG	1	GN
⚠	322	K2CA2CA00027	AC CORD W/PLUG	1	GT
⚠	322	K2CA2YY00070	AC CORD W/PLUG	1	GK
⚠	323	K2CJ29A00003	AC CORD W/PLUG	1	PR
⚠	324	VFF0515-C	CD-ROM (INSTRUCTION BOOK)	1	[SPC]EG,EP See “Notes”
⚠	324	VFF0516-C	CD-ROM (INSTRUCTION BOOK)	1	[SPC]EE See “Notes”
⚠	325	VQT2D45	SIMPLIFIED O/I (SPANISH)	1	PR
⚠	325	VQT2D55	SIMPLIFIED O/I (ENGLISH)	1	EB
⚠	325	VQT2D62	SIMPLIFIED O/I (ENGLISH)	1	GN
⚠	325	VQT2D61	INSTRUCTION BOOK (CHINESE(SIMPLIFIED))	1	GK
⚠	325	VQT2D60	INSTRUCTION BOOK (CHINESE(TRADITIONAL))	1	GT
⚠	325	VQT2D59	INSTRUCTION BOOK (TA)	1	GJ
⚠	325	VQT2D58	SIMPLIFIED O/I (ARABIC/PERSIAN)	1	GC
⚠	325	VQT2D56	SIMPLIFIED O/I (RUSSIAN/UKRAINIAN)	1	EE
⚠	325	VQT2D54	SIMPLIFIED O/I (HUNGARIAN/FINNISH)	1	EP
⚠	325	VQT2D46	SIMPLIFIED O/I (GERMAN/FRENCH)	1	EG
⚠	325	VQT2D48	SIMPLIFIED O/I (SPANISH/PORTUGUESE)	1	EG
⚠	325	VQT2D50	SIMPLIFIED O/I (SWEDISH/DANISH)	1	EP
⚠	325	VQT2D52	SIMPLIFIED O/I (POLISH/CZECH)	1	EP
⚠	325	VQT2D47	SIMPLIFIED O/I (ITALIAN/DUTCH)	1	EG
	326	VQT2G19	O/I SOFTWARE (SPANISH/PORTUGUESE)	1	PU,PR
	326	VQT2B69	O/I SOFTWARE (CHINESE(SIMPLIFIED))	1	GK
	326	VQT2D57	O/I SOFTWARE (ENGLISH/CHINESE(TRADITIONAL)/ARABIC/PERSIAN)	1	GC
	326	VQT2D90	O/I SOFTWARE (CHINESE(TRADITIONAL))	1	GT
	326	VQT2D89	O/I SOFTWARE (ENGLISH)	1	EB,GN
	326	VQT2C95	O/I SOFTWARE (TA)	1	GJ
	326	VQT2G20	O/I SOFTWARE (ENGLISH/CHINESE(TRADITIONAL)/ARABIC/PERSIAN)	1	GC
	326	VQT2B63	O/I SOFTWARE (GERMAN/FRENCH/ITALIAN/DUTCH/SPANISH/PORTUGUESE)	1	EG
	326	VQT2B64	O/I SOFTWARE (FINNISH/SWEDISH/DANISH/POLISH/CZECH/HUNGARIAN)	1	EP
	326	VQT2B67	O/I SOFTWARE (RUSSIAN/UKRAINIAN)	1	EE

Packing Parts and Accessories Section (2)